AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the applications:

Listing of Claims:

Claims 1-61 (canceled)

62. (currently amended) A ~~homogenous~~ protein comprising

(a) a soluble fragment of a receptor that (i) binds human tumor necrosis factor (TNF), (ii) has an apparent molecular weight of about 55 kilodaltons or about 75 kilodaltons on a non-reducing SDS-polyacrylamide gel, and (iii) comprises a fragment of the amino acid sequence set forth in SEQ ID NO: 2 or 4 ~~Figure 1~~; and

(b) all of the domains of the constant region of a human immunoglobulin heavy chain other than the first domain of said constant region;

wherein said protein specifically binds human TNF.

63. (currently amended) [[A]] The protein of claim 62 wherein the soluble fragment ~~a homogenous receptor that (i)~~ comprises ~~the amino acid sequence of Figure 1 beginning at~~ amino acids ~~number~~ 1 through ~~and ending at approximately at amino acid~~ 180 of SEQ ID NO: 2 ~~and (ii) binds human tumor necrosis factor~~.

64. (canceled)

65. (currently amended) ~~The protein of claim 63~~ The protein of claim 62, wherein the soluble fragment comprises amino acids 1 ~~to~~ through 183 ~~in~~ of SEQ ID NO: 2 ~~Figure 1~~.

66. (currently amended) A protein comprising

(a) a soluble fragment of a receptor ~~protein~~ that (i) binds human tumor necrosis factor, (ii) has an apparent molecular weight of about 55 kilodaltons or about 75 kilodaltons on a non-reducing SDS-polyacrylamide gel, and (iii) is encoded by a fragment of the DNA sequence set forth in SEQ ID NO: 1 or 3 ~~of Figure 1~~; and

(b) all of the domains of the constant region of a human immunoglobulin heavy chain other than the first domain of said constant region;

wherein said protein specifically binds human TNF.

67. (previously presented) The protein of claim 66, wherein the protein is recombinantly produced.

68. (previously presented) The protein of claim 67, wherein the protein is produced in a host cell from a DNA sequence that is heterologous to the host cell.

69. (currently amended) The ~~A homogeneous~~ protein of claim 66 wherein the soluble fragment ~~that (i)~~ comprises the amino acid sequence encoded by ~~the DNA sequence of Figure 1 beginning at~~ nucleotides ~~number~~ 121 through ~~and ending at approximately nucleotide number~~ 627 of SEQ ID NO: 1~~and (ii) binds human necrosis factor~~.

70. (previously presented) The protein of claim 69, wherein the protein is recombinantly produced.

71. (previously presented) The protein of claim 70, wherein the protein is produced by a host cell from a DNA sequence that is heterologous to the host cell.

Claims 72-74. (canceled)

75. (currently amended) The protein of claim 66 [[73]], wherein the ~~protein~~ soluble fragment comprises the amino acid sequence encoded by ~~the DNA sequence of Figure 1 beginning at~~ nucleotides 121 through ~~and ending at nucleotide~~ 633 of SEQ ID NO: 1.

76. (previously presented) The protein of claim 75, wherein the protein is recombinantly produced.

77. (previously presented) The protein of claim 76, wherein the protein is produced in a host cell from a DNA sequence that is heterologous to the host cell.

78-99 (canceled)

100. (new) The protein of claim 62 wherein the soluble fragment comprises the peptide LVPHLGDREKRDSVCPQGKYIHPQXNSI (SEQ ID NO: 5).

101. (new) The protein of claim 62 wherein the soluble fragment comprises a fragment of the amino acid sequence set forth in SEQ ID NO: 4.

102. (new) The protein of claim 101 wherein the soluble fragment comprises the peptides LCAP (SEQ ID NO: 12) and VFCT (SEQ ID NO: 8).

103. (new) The protein of claim 102 wherein the soluble fragment further comprises the peptide LPAQVAFXPYAPEPGSTC (SEQ ID NO: 10).

104. (new) The protein of any one of claims 62 or 100-103 wherein said human immunoglobulin heavy chain is an IgG heavy chain.

105. (new) The protein of claim 104 wherein the IgG is IgG_1 or IgG_3.

106. (new) A protein comprising

(a) a soluble fragment of a receptor that (i) binds human tumor necrosis factor (TNF), (ii) has an apparent molecular weight of about 55 kilodaltons or about 75 kilodaltons on a non-reducing SDS-polyacrylamide gel, and (iii) comprises a fragment of the amino acid sequence set forth in SEQ ID NO: 4,

wherein the fragment comprises the peptides LCAP (SEQ ID NO: 12), VFCT (SEQ ID NO: 8) and LPAQVAFXPYAPEPGSTC (SEQ ID NO: 10); and

(b) all of the domains of the constant region of a human IgG_1 heavy chain other than the first domain of said constant region;

wherein said protein specifically binds human TNF.

107. (new) A recombinant protein encoded by a polynucleotide which comprises two nucleic acid subsequences,

(a) one of said subsequences encoding a soluble fragment of an insoluble human TNF receptor protein, said soluble fragment comprising a fragment of the amino acid sequence of SEQ ID NO: 2 or 4, and

(b) the other of said subsequences encoding all of the domains of the constant region of the heavy chain of a human immunoglobulin other than the first domain of said constant region,

wherein said recombinant protein specifically binds human TNF.

108. The protein of claim 107 wherein the soluble fragment comprises the peptide LVPHLGDREKRDSVCPQGKYIHPQXNSI (SEQ ID NO: 5).

109. (new) The protein of claim 107 wherein the soluble fragment comprises a fragment of the amino acid sequence set forth in SEQ ID NO: 4.

110. (new) The protein of claim 109 wherein the soluble fragment comprises the peptides LCAP (SEQ ID NO: 12) and VFCT (SEQ ID NO: 8).

111. (new) The protein of claim 110 wherein the soluble fragment further comprises the peptide LPAQVAFXPYAPEPGSTC (SEQ ID NO: 10).

112. (new) The protein of any one of claims 107-111 wherein said human immunoglobulin heavy chain is an IgG heavy chain.

113. (new) The protein of claim 112 wherein the IgG is IgG_1 or IgG_3.

114. (new) A composition comprising the recombinant protein of any of claims 62, 66, or 100-113 and a pharmaceutically acceptable carrier material.

115. (new) A method of making a protein of any of claims 107-113 comprising the steps of culturing a host cell which expresses a polynucleotide encoding the protein of any of claims 107-113 and isolating the protein from the host cell.

116. (new) A protein produced by the method of claim 115.

117. (new) A method of making a protein of any of claims 107-113 comprising the steps of culturing a host cell which expresses a polynucleotide encoding the protein of any of claims 107-113 and isolating the protein from culture supernatant.

118. (new) A protein produced by the method of claim 117.